

ABSTRACT OF THE DISCLOSURE

An insulation plug is disclosed for mounting in and generally filling a central recess in the die face of an extrusion die in an underwater pelletizer. The insulation plug is in the form of a rigid circular plate that substantially fills the recess in the die face oriented in opposed relation to a cutter hub and cutter knives of the underwater pelletizer and is secured in place by a fastening bolt. The insulation plug may be made of solid one piece construction or hollow two piece construction, but is made of a material having low heat conductivity. The plug has raised and recessed portions to form bottom and side air gaps within the recess. The plug reduces the transfer of heat from the molten polymer being extruded through orifices in the die plate to water circulating through a water box of the underwater pelletizer. A rigid bushing or spacer may be used in existing extrusion die plates to maintain the bottom air gap against compressive forces generated by the fastening bolt when attaching the circular plate.